

# PATENT ABSTRACTS OF JAPAN

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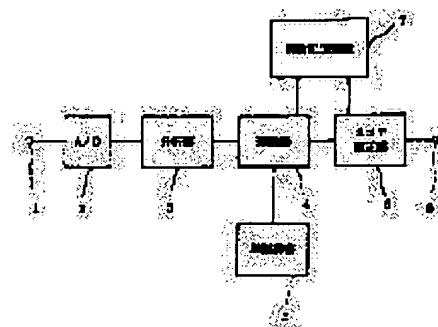
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## (54) METHOD AND DEVICE FOR VOICE RECOGNITION

### (57)Abstract:

**PURPOSE:** To improve principle defects of word spotting and increase the recognition rate of voice recognition by correcting the score of the word matching so that the score is higher and higher as the length of a standard pattern is longer and longer corresponding the length of a voice section detected as a result of the word spotting using the standard pattern.

**CONSTITUTION:** This device consists of an input terminal 1 for a voice, an A/D conversion part 2, a feature parameter analysis part 3, a recognition part 4, a word dictionary 5 which is used by the recognition part 4 at the time of a recognizing process, a score correction part 6, an auxiliary storage device 7, and an output terminal 8 for a recognition result. This constitution weights an arithmetic result so that long words are given priority. Namely, the voice section is so segmented by the word spotting that, for example, a word standard pattern/roku/which has more syllables is longer in voice section than a word standard pattern/ku/with one syllable. Scores of 2nd order and successors are corrected on the basis of the voice section length with a score of 1st order in reverse proportion to the detected voice section length of each word standard pattern.



## LEGAL STATUS

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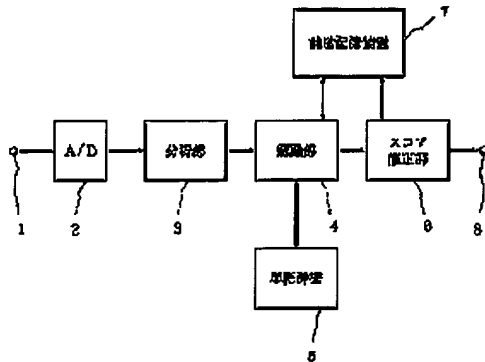
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【図1】



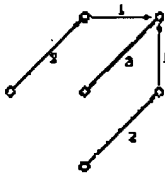
【図2】

総番号	単語
1	ゼロ
2	ワン
3	ニ
4	レイ
5	サナ
6	オン
7	ガ
8	マル
9	シ
10	ロク
11	ク
12	ハチ
13	ジュウ
14	チウ
15	イチ
16	ヘイ
17	イイユ

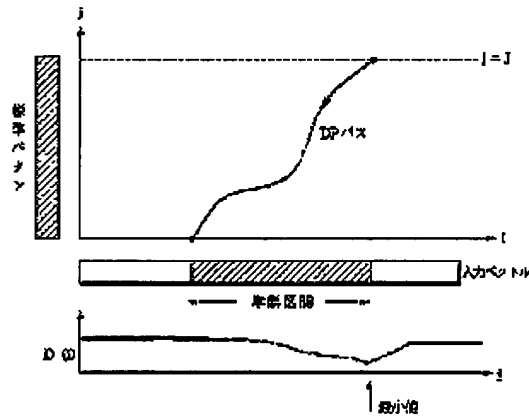
【図3】

フレーム1	$m_1$	$\Sigma_1^{-1}$
フレーム2	$m_2$	$\Sigma_2^{-1}$
...	...	...
フレームj	$m_j$	$\Sigma_j^{-1}$
...	...	...
フレームj	$m_j$	$\Sigma_j^{-1}$

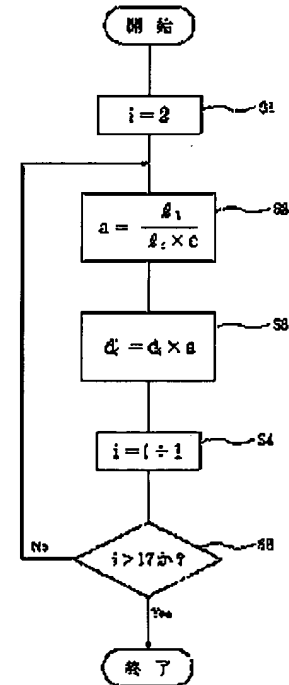
【図4】



【図5】



【図7】



【図8】

順数	単語	スコア	単語長 (音)	修正係数	修正後のスコア	修正後の順数
1	KU	3.34	70	-	3.34	2
2	ROKU	3.51	165	0.71	2.48	1
3	KYUU	6.08	105	1.11	6.78	3
4	YOE	5.71	100	1.27	6.68	4
...	...	...	...	...	...	...
16	SI	16.97	180	0.60	16.20	16
17	ME	31.23	180	0.59	28.69	17

【図10】

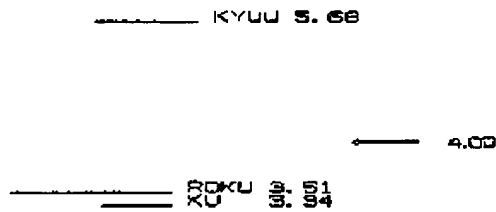
順数	単語	スコア	単語長 (音)	修正係数	修正後のスコア	修正後の順数
1	KU	3.34	70	-	3.34	1
2	ROKU	5.83	165	1.05	6.51	4
3	KYUU	6.08	105	1.00	6.40	3
4	MAJU	6.80	208	1.14	7.75	2
...	...	...	...	...	...	...
16	SI	21.03	175	1.55	28.07	16
17	ME	31.03	145	1.01	27.96	17

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【図6】

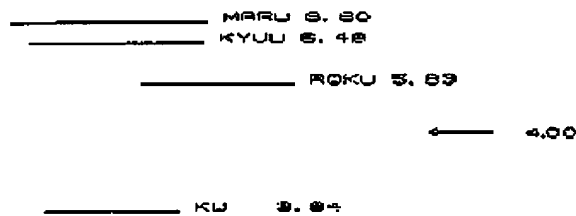


【図11】

フレーム1	u <sub>1</sub>
フレーム2	u <sub>2</sub>
フレーム3	u <sub>3</sub>
フレーム4	u <sub>4</sub>



【図9】



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